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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,041	07/13/2001	Marc Madou	22727/04096	2217

24024 7590 04/01/2004

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EXAMINER
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CHUNDURU, SURYAPRABHA

ART UNIT	PAPER NUMBER
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1637

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/905,041

Applicant(s)

MADOU ET AL.

Examiner

Suryaprabha Chunduru

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

1. Acknowledgement is made for the request to establish continued prosecution application (RCE) filed on March 12, 2004. The request for RCE is accepted and is established with the status of the application as follows:
  - a. the filling date of this RCE is established as July 13, 2001;
  - b. Claims 1-40 and 42--57 are cancelled. Claim 41 is amended.
2. Applicants' response to the earlier office action filed along with RCE is considered and has been entered.

***Response to Arguments***

3. Applicants' response to the office action is fully considered and found persuasive.
4. With reference to the rejection under 35 USC 102(b), Applicants amendment and arguments are fully considered and the rejection is withdrawn herein in view of the amendment.
5. With reference to the rejection under 35 USC 103(a), Applicants amendment and arguments are fully considered and the rejection is withdrawn herein in view of the amendment and new grounds of rejections.

***New issues***

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 41 is rejected under 35 U.S.C. 102(b) as being anticipated by Kool (USPN. 6,077,668).

Kool teaches a synthetic multimeric biopolymer (oligonucleotide multimer) comprising plurality (multiple copies or repeated copies) of monomeric units (oligonucleotides) (see column 4, lines 9-20, column 6, lines 41-46, column 15, lines 23-46, column 53, lines 27-58), wherein a plurality of said multimeric units in said biopolymer comprise a binding region for an analyte (nucleic acid – DNA or RNA) (see column 4, lines 31-44, column 53, lines 34-37);

Wherein the monomeric units that comprise a binding region for analyte are covalently linked to each other (see column 53, lines 27-44, column 54, lines 5-25);

Wherein the covalently linked monomeric units that comprises a binding region for an analyte generates a signal (column 53, lines 49-58);

Wherein the signal generated by the monomeric units linked covalently with each other bound to an analyte (branched binding) is greater than the signal generated by the monomeric units that are linked noncovalently linked to each other and bound to an analyte (see column 53, lines 51-58, the cited portions of the patent teach branched binding of repeated monomeric units of a multimer labeled with fluorescent labels, generate amplified signal, that is additive signal, which is inherently greater than that of a signal generated by single monomeric units).

Thus the disclosure of Kool meets the limitations in the instant claim.

B. Claim 41 is rejected under 35 U.S.C. 102(b) as being anticipated by Whiteley et al. (USPN. 4,883,750).

Whiteley et al. teach a synthetic multimeric biopolymer (target probe) comprising plurality of monomeric units (diagnostic probe and contiguous probe) (see column 3, lines 51-54,

column 5, lines 49-52, column 10, lines 4-17), wherein a plurality of said multimeric units in said biopolymer comprise a binding region for an analyte (see column 3, lines 51-54);

Wherein the monomeric units that comprise a binding region for analyte are covalently linked to each other (see column 3, lines 51-54);

Wherein the covalently linked monomeric units that comprises a binding region for an analyte generates a signal (column 3, lines 51-59, column 10, lines 4-17);

Wherein the signal generated by the monomeric units linked covalently with each other bound to an analyte is greater than the signal generated by the monomeric units that are linked noncovalently linked to each other and bound to an analyte (see column 10, lines 4-17, Fig. 3, wherein the melting curve signal generated by ligated probe, is higher than the non ligated probe).

Thus the disclosure of Whitley et al. meets the limitations in the instant claim.

### ***Conclusion***

No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suryaprabha Chunduru whose telephone number is 571-272-0783. The examiner can normally be reached on 8.30A.M. - 4.30P.M, Mon - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782 . The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and - for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Suryaprabha Chunduru  
March 29, 2004

*Jehanne Sitton*  
**JEHANNE SITTON**  
**PRIMARY EXAMINER**  
*3/29/04*